

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
AT BLUEFIELD

LUMA CORPORATION,

Plaintiff,

v.

CIVIL ACTION NO. 1:02-1132

STRYKER CORPORATION and
KARL STORZ ENDOSCOPY-AMERICA, INC.,

Defendants,

KARL STORZ ENDOSCOPY-AMERICA, INC.,

Plaintiff,

v.

CIVIL ACTION NO. 1:02-1479

LUMA CORPORATION,

Defendant.

MEMORANDUM OPINION

Pursuant to Fed. R. Civ. P. 53, this action was referred by order of this court ("Referral Order") to Paul A. Beck to serve as a Special Master for interpretation of the disputed claims on February 24, 2005.¹ The special master filed his final report on August 1, 2005. On August 12, 2005, Stryker Corporation ("Stryker") moved to adopt the Report. (Doc. No. 434.) On August 18, 2005, Luma Corporation ("Luma") objected to the special master's construction in section 15 of the Report. (Doc. No. 435.) On August 19, 2005, Karl Storz Endoscopy-America, Inc. ("Karl Storz") moved to modify the Report. (Doc. No. 436.) As

¹ Claims 14, 15, 17, 19, 29, 30, 32, 34, 44, and 45 are disputed. (See Doc. No. 433 at 7.)

discussed below, the court overrules Luma's objection, denies Karl Storz's motion to modify, and sua sponte modifies the special master's construction in Section 15 of the Report. The court adopts the Report as modified.

I. Factual Background

Plaintiff Luma holds a patent ("801 patent") that defendants Karl Storz and Stryker allegedly infringed. (See Doc. No. 1, Ex. A, U.S. Patent No. 5,740,801.) The '801 patent covers a system for acquiring, processing, storing, and displaying images during surgery. (Doc. No. 1, Ex. A, Specification, Col. 1, Ln. 27-38.) During an endoscopic surgical procedure, a surgeon uses a video camera to capture images of the surgical site. Luma's patented system displays, records, and manipulates these images.

Luma alleges that Karl Storz and Stryker make, use, sell, or import devices covered by the '801 patent. (Doc. No. 1 ¶ 14.) Stryker and Karl Storz allege that they do not infringe the '801 patent and that it is invalid or unenforceable. (Doc. No. 10 at ¶¶ 18-19, 36; Doc. No. 13 ¶¶ 22.)

On February 24, 2005, this case was referred to Special Master Paul Beck for interpretation of the disputed claims in the '801 patent using the claims, specification, prosecution file, proposed constructions, and testimony from the Markman hearing, held on November 16, 2004. On June 30, 2005, the special master

provided a draft of his report and recommendation to the parties. The parties responded to the draft report by July 7, 2005. On July 12, 2005, the special master held a conference with the parties regarding the draft report, and the parties waived their right to a hearing on the draft report as provided in the Referral Order. The special master revised his report in response to the parties submissions and submitted the final report to the court on August 1, 2005 ("Report").

As permitted by the Referral Order, the parties submitted responses to the Special Master's Report within twenty days. (Doc. Nos. 434, 435, 436.)² Luma objects to the Report, arguing that the term "graphical object" in Section 15 of the Report should be construed to include text without further limitation. (Doc. No. 435 at 2.) Karl Storz moved to modify Section 1 of the Report to include language from the specification explicitly identifying an ultrasound scanner as an "input device" and by striking the paragraph labeled "Interesting Issue" on page 33 of the Report. (Doc. No. 436 at 1.) Stryker simply moved that the court adopt the special master's report without change. (See Doc. No. 434 at 1.)

² This is a consolidated case consisting of a case for infringement brought in this district by Luma (1:04-1132) and a noninfringement declaratory action brought by Karl Storz in the Central District of California and later transferred here (1:02-1479). The cases have been consolidated under 1:04-1132. Unless otherwise noted, docket numbers appearing in this Memorandum Opinion refer to documents on the 1:02-1132 docket.

A. Arguments Regarding Construction of "said one or more visual representations comprising graphical objects"

The parties focus their arguments on the meaning of "graphical object" and specifically whether the patent treats "text" alone as a type of "graphical object." Luma argues that "graphical object" in Section 15 of the Report should be construed to include "text" without any further limitation. (Doc. No. 435.) The special master considered all of the arguments Luma raises here and disagreed. The special master construed "graphical object" as follows: "A graphical object is a symbol and pertains to pictorial representation of data. Graphical objects are not text. Text is not a graphical object. A graphical object may include text. Text without a graphical object is not a graphical object." (Doc. No. 433 at 74.)

Luma argues that the computer interface used by the patented device and covered under the '801 patent is evidence that "text" is a subset of "graphical object." (Doc. No. 433, Tab 10, Luma's Objection at 2.) Luma argues that the patented device's graphic user interface uses "text" as a building block for menu construction, and thus "text" must be treated as a graphical object. (Id.)

In addition, Luma argues that at the time of the invention, computers were shifting from text-based (e.g. Microsoft DOS) to graphic-based (e.g. Microsoft Windows) user interfaces and that

the patent's seemingly dichotomous references to "text" and "graphical objects" were really an effort to describe how the system would work on operating systems employing the two different user interfaces. (Id., Tab 12, Luma's Surrebuttal, at 3-4.) Luma argues that it is proper to look to the shift from text-based to graphic-based user interfaces in order to understand the context of the invention, and argues that the special master failed to do this. (Id. at 2-4.)

Luma argues that the special master's reliance on a dictionary to construe the meaning of "graphical object" was improper under Phillips v. AWH Corp., 415 F.3d 1303, 1314-15 (Fed. Cir. 2005) because it led the special master to find the plain meaning of that term rather than the meaning to a person of ordinary skill in the art at the time of the invention. (Id., Tab 12, Luma's Surrebuttal at 6.) Even so, with little explanation, Luma argued that its proposed interpretation was not inconsistent with the dictionary definition consulted by the special master nor the software patent treatise offered by Luma. (Id.; Id., Tab 10, Luma's Objection, Ex. A.)

Stryker defends the special master's construction. Stryker argues that the patent specification treats "graphical objects" and "text" as mutually exclusive things by consistently listing

them in the alternative.³ (Doc. No. 433, Tab 11, Stryker's Response at 2-4.)

Next, Stryker contends that the terms "text" and "graphical object" must have different meanings under the doctrine of claim differentiation, which states that separate claims are presumptively different in scope. (Id. at 4-5.) Stryker argues that the only distinction between independent Claim 14 and dependent Claim 15 is that one refers to "text" and the other to "graphical objects." (Doc. No. 433, Tab 11, Stryker's Response at 4-5.) From this, Stryker infers that "text" and "graphical

³ Stryker points to the following text of the patent specification:

The one or more visual representations may include text that is anti-aliased for improved appearance, graphical objects, or an additional image or images that may be obtained from an additional input device. (Doc. No. 1, Ex. A, Specification, Col. 2, Ln. 32-35.) (emphasis added)

Prompting is performed via a graphical object or a text clue imposed on the displayed image that guides the operator to the proper position for capture. (Doc. No. 1, Ex. A, Specification, Col. 17, Ln. 45-48.) (emphasis added)

Starting with the image file 160, the operator (e.g., the physician) selects the text or graphical objects with which to annotate the image using one or more suitable data input devices 22 (FIGS. 1 and 2). (Doc. No. 1, Ex. A, Specification, Col. 19, Ln. 55-58.) (emphasis added)

The input device is also used to locate the text or graphical object on the image. (Doc. No. 1, Ex. A, Specification, Col. 19, Ln. 59-61.) (emphasis added)

objects" are mutually exclusive things, and thus, that "text" alone cannot be a type of "graphical object."

Luma responds that the doctrine of claim differentiation cannot be used to broaden claims beyond their correct scope. Dow Chem. Co. v. United States, 226 F.3d 1334, 1341-42 (Fed. Cir. 1999). Luma argues that the shift from text- to graphic-based user interfaces better explains the difference in the terms.

B. Arguments Regarding Construction of "input device"

Karl Storz seeks to modify the report to insert in Section 1 an additional reference to the specification that identifies an ultrasound scanner as an "input device." (Doc No. 436 at 1-2.) Further, Karl Storz asks this court to strike from the Report a paragraph in Section 1 entitled "Interesting Issue." (Id. at 3.)

II. Standard of Review

Determining whether an accused process or device infringes a patent claim is a two-step process. "The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing." Markman v. Westview Instruments, Inc., 52 F.3d 967, 976, (Fed. Cir. 1995) (en banc), aff'd 517 U.S. 370 (1996). The Report construes all of the disputed claims at issue and upon adoption by the court accomplishes the first step of this process.

In reviewing the Special Master's Report, this court reviews de novo the findings of fact and conclusions of law objected to

by the parties. Fed. R. Civ. P. 53(g)(3) & (4) (amended 2003). All other findings of fact and conclusions of law may but need not be reviewed de novo. See Fed. R. Civ. P. 53 advisory committee's note on 2003 Amendments.

III. Analysis

Construction of the patent terms is a question of law determined by the court. Markman, 52 F.3d at 979; Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). It is well settled that the court must first look to the intrinsic evidence of the patent to determine the scope of the claims. Markman, 52 F.3d at 979. The intrinsic evidence includes the words of the claims themselves, the specification, and the prosecution history, if in evidence. Id.

In most cases, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed term, and under those circumstances, consideration of extrinsic evidence is improper. Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc., 222 F.3d 951, 955 (Fed. Cir. 2000) ("If the meaning of a claim is unambiguous from the intrinsic evidence, then a court may not rely on extrinsic evidence for purposes of claim construction").

A. Construction of "said one or more visual representations comprising graphical objects"

The intrinsic evidence shows that whatever "graphical objects" means within the '801 patent, it does not include "text"

alone. Beyond that, the intrinsic evidence provides little guidance to show what "graphical object" means, and so to construe that term, the special master properly looked to extrinsic evidence. However, the court finds that the final sentence of the special master's construction is circular and modifies it in accordance with this opinion to remedy the problem.

1. Claims and Specification

Stryker argues that the claims show that "text" alone is not a type of "graphical object" under the doctrine of claim differentiation. Under this doctrine, each claim in the patent is presumptively different in scope. Intermatic Inc. v. Lamson & Sessions Co., 273 F.3d 1355, 1364 (Fed. Cir. 2001), vacated and remanded on other grounds by, 537 U.S. 1016 (2002). The presumption is especially strong where, as here, there is a dispute over whether a limitation found in a dependent claim⁴ should be read into an independent claim and that limitation is the only meaningful difference between the two claims. Ecolab, Inc. v. Paraclipse, Inc., 285 F.3d 1362, 1375 (Fed. Cir. 2002); Phillips v. AWH Corp., 415 F.3d 1303, 1314-15 (Fed. Cir. 2005) ("[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in

⁴ A dependent claim refers to a previous claim and adds further limitations to it. 37 C.F.R. § 1.75(c).

question is not present in the independent claim").

Under the doctrine of claim differentiation, Claims 14 and 15 show that a "graphical object" cannot be "text" alone within the context of the '801 patent. Claim 14⁵ is an independent

⁵ Claim 14 states:

A system for acquiring images during a medical procedure and using the acquired images, comprising

- at least one input device for obtaining said images.
- at least one output device for using the images obtained by said input device to enable image data to be communicated to a medical practitioner.
- a preference database for pre-storing, for each one of a plurality of users of said system, respective preference information that indicates one or more visual representations that said one of said plurality of users of said system prefers to be applied to said at least one output device together with said images obtained by said input device, said one or more visual representations comprising graphical objects, and
- a processor for receiving an indication of an identity of one of said users, who is currently using said system. and, responsive to said indication of said identity of said one of said users who is currently using said system, for retrieving said preference information for said one of said users pre-stored in said preference database, for combining said one or more visual representations with said images obtained by said input device based on the preference information in said preference database that corresponds to said one of said users, and for applying said images to said at least one output device together with said one or more visual representations.

claim. It lays out several essential elements of the patented system and does not incorporate another claim. Claim 15⁶ is a dependent claim because it incorporates Claim 14 by reference. Thus, under the principles discussed above, Claim 15 is presumed to provide something distinct to Claim 14. The only discernable difference between the two claims is that Claim 15 allows visual representations to comprise "text." Claim 14 describes visual representations comprising "graphical objects." As the special master found, this is powerful intrinsic evidence that a person of ordinary skill in the art at the time of the invention would understand "graphical object" not to include "text" alone.

Furthermore, as Stryker points out, the patent specification and claims refer to "text" and "graphical objects" in the alternative multiple times.⁷ Thus, the specification indicates that a person of ordinary skill in the art at the time of the invention would believe that "text" alone was not a "graphical object."

Luma argues that the patent refers to "text" and "graphical

(Doc. No. 1, Ex. A, Claims, Col. 48, Ln. 11-37.)

⁶ Claim 15 states:

A system in accordance with claim 14 wherein said one or more visual representations comprise text.

(Doc. No. 1, Ex. A, Claims, Col. 48, Ln. 38-39.)

⁷ (Doc. No. 1, Ex. A, Specification, Col. 2, Ln. 33-35; Col. 17, Ln. 45-46; Col. 19, Ln. 56-59; Col. 19, Ln. 59-60.) See footnote 4 above.

objects" in the alternative because it refers primarily to operating systems using text-based (e.g. Microsoft DOS) versus graphic-based (e.g. Microsoft Windows) user interfaces. This argument was presented to the special master after Luma reviewed the master's draft report, and the master revised his construction based on it. The construction in the draft report contained the statement "graphical objects are not text." (See Doc. No. 433, Tab 10 at 2.) The master amended the construction in the final report to make clear that "text" can be a part of a "graphical object," but that it is not a "graphical object" by itself. (See Doc. No. 433 at 74.)

The special master's amendments to the draft report extend Luma's arguments as far as the evidence supports. Luma's argument supports the conclusion that "text" can be used as part of a "graphical object" created by the patented system for the user interface (e.g. in a menu). But it goes no further. Luma discusses how a software engine described in the '801 patent pulls together shapes, text, lines, buttons, backgrounds, etc. to form menus. (Doc. No. 433, Tab 10 at 3.) These form part of the program's interface with the user. But the use of text as a part of the user interface simply does not support Luma's contention that "text" alone can be a "graphical object" within the meaning of the '801 patent.

Moreover, the court finds no merit in Luma's argument that

the seemingly dichotomous references to "text" and "graphical objects" within the '801 patent reflects the drafter's attempt to cover operating systems using text- as well as graphic-based user interfaces because that argument is in conflict with the intrinsic evidence.⁸ As discussed above, the intrinsic evidence treats the two terms as distinct items, though it indicates that the system can use "text" and "graphical objects" together. Therefore, based on the specification and claims, the court finds that a person skilled in the art at the time of the invention would conclude that a "graphical object" could not be "text" alone.

2. Patent Prosecution History

The '801 patent prosecution history shows that the patent examiner treated "graphical objects" and "text" differently. The examiner rejected Proposed Claim 22, which stated, "A system in accordance with Claim 21 [Patent Claim 14's predecessor⁹],

⁸ The court also notes that Luma's argument that the two terms were meant to cover the emergence of operating systems using graphic- as well as text-based interfaces is somewhat inconsistent with Luma's argument that "text" as used in the '801 patent is intended to describe a building block within a graphic-based interface.

⁹ Proposed Claim 21 became Patent Claim 14. (See Doc No. 437, Ex. 3, Patent Application, Ln. 8-10; Ex. 4, PTO Office Action Summary at 4; Ex. 5, Response to PTO Office Action at 5.) Proposed Claim 21 stated "respective preference information that indicates one or more visual representations. . . ." (Id.) The examiner rejected the claim as anticipated by a prior patent (Wilhelm '543). (Id., Ex. 4, Office Action Summary at 4.)

wherein said one or more visual representations comprise text.” (Id.) At the same time, the examiner allowed Proposed Claim 24, which stated “A system in accordance with claim 21 wherein said one or more visual representations comprise graphical objects.” (Id.) The language of Proposed Claim 24 was later incorporated into Patent Claim 14, but no longer appears as a separate dependent claim in the ‘801 patent. (See Doc. No. 437, Ex. 5, Response to PTO Office Action at 5-6.)

This history shows that the patent examiner saw a difference between a “graphical object” and “text.” A claim including “visual representations comprising text” was rejected while a claim including “visual representations comprising graphical objects” was allowed. The prosecution history evidence is particularly persuasive because it is highly indicative of the understanding as it existed at the time of the invention, the legally determinative time frame. Thus, based on the prosecution history, the court finds that one skilled in the art at the time of the invention would conclude that “text” alone could not be a “graphical object.”

3. Special Master’s Use of Extrinsic Evidence

Luma objects to the special master’s use of extrinsic evidence in construing the term “graphical object.” In Phillips v. AWH Corporation, the Federal Circuit refined its guidance on the use of dictionaries in construing patent terms. See 415 F.3d

1303, 1320-24. The Federal Circuit made clear that judges may consult dictionaries and technical treatises for meaning as long as they do not contradict the patent documents, and that the court must focus on attaching the appropriate weight to the evidence. Id. at 1322-24. The underlying policy is to avoid reading limitations from the specification into the claims and to avoid systematic overbreadth in claims. Id. at 1322-23.

While the record amply shows that the term "graphical object" does not include "text" alone, it provides the court with little guidance on what the term does include. Because the meaning of "graphical object" is unclear from the intrinsic evidence, it is appropriate to consult extrinsic evidence, such as a dictionary, to aid the court's interpretation. See Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc., 222 F.3d 951, 955 (Fed. Cir. 2000). Accordingly, the special master relied on a definition of "graphical" found in the Authoritative Dictionary of IEEE¹⁰ Standards Terms 7th ed. (Doc. No. 433 at 77.) That definition states, "Graphical - pertaining to the pictorial representation of data." (Doc. No. 377, Ex. F.)

None of the parties provides a different dictionary definition or argues that the IEEE dictionary itself is contrary

¹⁰ "IEEE" stands for "Institute of Electrical and Electronics Engineers, Inc." who publishes the IEEE dictionary.

to the intrinsic evidence or otherwise problematic.¹¹ Luma offers a portion of a software treatise, which explains that an operating system using a graphic user interface displays text as pictures of text. (Doc. No. 433, Tab 10, Luma's Objection, Ex. A.) The court considered both and found that the IEEE dictionary definition of "graphical" is evidence of the pictorial nature of "graphical objects." Further, the definition was consistent with the conclusion drawn from the intrinsic evidence that "text" alone is not a graphical object. Accordingly, the court agrees with the special master that a person skilled in the art at the time of the invention would conclude that a "graphical object" pertains to a "pictorial representation of data." (See Doc. No. 433 at 74.)

4. Modification of Special Master's Construction

After its de novo review, the court believes the final sentence of the special master's construction in Section 15 of the report is circular. Currently, that sentence states, "Text without a graphical object is not a graphical object." (Doc. No. 433 at 74.) As stated above, the court believes the evidence shows that one skilled in the art at the time of the invention would conclude that "text" alone is not a "graphical object." To remedy the circularity in the special master's construction, and

¹¹ Luma argues that the court should not consult any extrinsic evidence, the court does not understand Luma to object to this dictionary particularly.

in accordance with the reasoning stated above, the court modifies the special master's construction as follows:

``[S]aid one or more visual representations comprising graphical objects' means one or more visual representation comprising graphical objects. A graphical object is a symbol and pertains to pictorial representations of data. Graphical objects are not text. Text is not a graphical object. A graphical object may include text. Text alone is not a graphical object"

B. Construction of "Input Device"

The parties' dispute over the special master's discussion of "input device" centers on whether it includes an ultrasound scanner. Karl Storz moved to modify Section 1 of the Report, arguing that the specification specifically identifies an ultrasound scanner as an "input device." (Doc. No. 436 at 1.) Luma argues that modifying the report is pointless because it already contains a reference to the portion of the specification Karl Storz advances. (Id.) The court finds that Section 1 of the Report already refers to the portion of the specification that Karl Storz advances. Accordingly, the court denies Karl Storz's motion to modify the Report to add that reference.

Additionally, Karl Storz seeks to strike from the Report the special master's discussion of whether an ultrasound scanner might be an "input device." In response, Luma argues that the special master's discussion should remain because it constitutes part of the "bases of and reasons for" his construction of "input

device" as required by the court's Referral Order. (Doc. No. 438 at 2-3.) The ultrasound scanner is an embodiment discussed in the specification and the special master properly refrained from reading it into the claims. See Electro Medical Sys., S.A. v. Cooper Life Scis., Inc., 34 F.3d 1048, 1054 (Fed. Cir. 1994) (holding that a particular embodiment appearing in the specification will not be read into the claims when the claim language is broader than such embodiments). Thus, the special master's paragraph entitled "Interesting Issue" is innocent surplusage, and the court therefore declines to remove it. Accordingly, Karl Storz's motion to modify the Report by deleting the paragraph entitled "Interesting Issue" on page 33 is denied.

IV. Conclusion

For the reasons stated above, (1) Luma's objection (Doc. No. 435) is OVERRULED, (2) Karl Storz's motion to modify (Doc. No. 436) is DENIED, (3) Section 15 of the Special Master's Report is MODIFIED sua sponte, and (4) Stryker's motion to adopt the Special Master's Report is GRANTED except insofar as the court has modified the Report.

For the reasons stated above, the posture of the case has changed so substantially by the adoption of the special master's report that the parties' dispositive motions no longer adequately address the claims currently before the court. Accordingly, the following motions are DENIED WITHOUT PREJUDICE:

1. Stryker's motion for summary judgment (Doc. No. 279);
2. Luma's motion for summary judgment (Doc. No. 287);
3. Luma's motion for summary judgment (Doc. No. 293);
4. Stryker's motion for summary judgment (Doc. No. 303);
5. Karl Storz's motion for partial summary judgment (Doc. No. 311);
6. Karl Storz's motion for partial summary judgment (Doc. No. 315); and
7. Karl Storz's motion for partial summary judgment (Doc. No. 319).

The court hereby GRANTS to all parties leave to file renewed motions for summary judgment by February 20, 2006 with responses and replies due thereafter in accordance with the Local Rules.

The Clerk is directed to mail and fax a copy of this Memorandum Opinion to all counsel of record.

IT IS SO ORDERED this 3rd day of February, 2006.

ENTER:

A handwritten signature in black ink, appearing to read "David A. Faber", is written over a horizontal line.

David A. Faber
Chief Judge